REMARKS

Claims 1-12, 14, 16-27 and 29-31 are currently pending in the present application. No new matter has been added.

Applicants respectfully request reconsideration of the present application based on the amendments to the claims and the following remarks.

Detailed Remarks

I. Rejections Under 35 U.S.C. § 101

The Office Action rejected claims 1-12, 14, 16-27, and 29-31 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The rejection asserts that "§101 process must (1) be tied to another statutory class (such as particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim(s), the method is not a patent eligible process under 35 U.S.C. § 101." (Office Action, p. 5).

With regard to claims 1-12, 14, 16-20 and 22-26, Applicants traverse this rejection because these claims are not drawn to a process or a method. These claims are drawn to apparatus, which is statutory subject matter. Independent claim 1 is drawn to a computer readable medium memory and claim 20 is drawn to a computer system with computer readable medium, where a data structure is encoded or stored on the computer readable medium. This is patentable subject. See MPEP § 2106.01 and *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

With regard to claims 21, 27, and 29-31, Applicants submit that the amendments overcome the rejection. The claims recite ties to a particular apparatus. Applicants assert that the claims as amended are statutory.

II. Rejections Under 35 U.S.C. § 103(a)

The Office Action rejected claims 1-2, 4-6, 8-12, 20 and 25-26 under 35 U.S.C. §103(a) as being unpatentable over Dimitrios et al. (U.S. Patent No. 5,659,723) in view of Bosco et al. (U.S. Patent No. 5,191,522) and in further view of Guy et al. (U.S. Patent No. 6,993,510). The Office Action rejected claims 21 and 27-31, under 35 U.S.C. §103(a) as being unpatentable over Dimitrios, Bosco, Guy and further in view of Hele et al. (U.S. Patent Application Publication No. 2002/0111835 A1).

A. Claims 1-2, 4-6, 8-12: Cited references fail to teach each of the features recited in elements (a)(i)-(iv) of claim 1 being established to form multiple concise account level decision relationships

Claim 1, element (a) recites how each of the features recited in elements (a)(i)-(iv) "are established to form multiple concise account level decision relationships used to construct multiple concise account level decision queries used to perform account level decision analysis". In other words, in the data structure recited in claim 1, different related customers may be linked to the same account through an account involvement entity class. Such feature allows the application programs to perform their functions at the account level. For example, "an application program may search for and display all customers for which an involvement has been created to the same account" (Applicants' Specification, paragraph [0078]). Thus claim 1 enables creating multiple concise account level decision relationships through the inter-relationships of elements (a)(i)-(iv) as recited in claim 1.

The Examiner cites to Bosco and Guy to supplement Dimitrios as disclosing all the features recited in claim 1, elements (a)(i)-(iv) to form multiple concise account level decision relationships. However, none of the references, Dimitrios, Bosco, Guy, or their combinations can be read to teach all the features of claim 1 which allow for a multiple concise account level decision relationships as recited in claim 1. Specifically, claim 1,

elements (a)(i) – (iv) recites at least two features that Dimitrios alone or in combination with Bosco and Guy does not teach or suggest.

i. Guy fails to teach element a(iv) of claim 1

Firstly, Claim 1 as amended recites in element (a)(iv) the features "a third account role for the first customer data object with respect to the first account ID, the third account role different from the first account role, that establishes multiple different roles for the customer identified by the first customer ID with respect to the account ID identified by the first account ID". The Examiner concedes in the Office Action that Dimitrios fails to teach at least the features of claim 1, element (a)(iv), and seeks to supplement Dimitrios with Bosco and Guy. (Office Action, pg. 8, paragraph 10). The Examiner specifically cites to Guy as disclosing this feature of claim 1.

However, Applicants assert that Guy fails to disclose establishing multiple different roles for a customer identified by a customer ID with respect to a single account as recited in claim 1, element (a)(iv). Guy is directed to a system for managing credit card accounts. Each cardholder has a different presentation ID and may be assigned to a role, such as "primary," "secondary", and "other". A cardholder designated as "primary" may have certain permissions which a cardholder designated as "secondary" may not have. A third role "other" is also disclosed, which has a more restricted permissions and are assigned to a child cardholder. (Guy, col. 4, lines 34-39). However, Guy is silent as to disclosing a data structure where multiple roles are defined for a single customer on a single account as recited in claim 1, element (a)(iv). According to Guy, roles for cardholders may be defined for each account, and also for all accounts for which a card has been issued to one customer. (Guy, col. 4, lines 40-43). Thus Guy teaches that roles may be assigned to each cardholder of a single account and also to each account held by a single customer, but does not teach that a single customer may have multiple roles for a single account. Guy, Fig. 2 also fails to teach such feature. Each box denoting an account role ("Customer/Account Role") is connected only to one account and one customer. While Fig. 2 discloses that a single customer may have two different roles (i.e. object 210a), no account roles are

connected to more than one account. Therefore, Guy fails to teach or suggest the features recited in claim 1, element (a)(iv).

ii. Dimitrios fails to teach element (a)(iii) of claim 1

Secondly, the Examiner cites to Dimitrios as teaching the features of claim 1, element (a)(iii). The Examiner cites to Dimitrios, Figs. 1, 2, and col. 6, lines 45-60 as disclosing such feature. However, Applicants disagree.

Applicants assert that Dimitrios at least fails to teach the feature "a third account involvement that establishes a third relationship between the first customer data object and the first account data object, the third relationship being different from the first relationship" as recited in claim 1, element (a)(iii). In other words, Applicants assert that Dimitrios fails to teach a feature where two different relationships are established between a single account and a single customer. Dimitrios, Fig. 1, discloses a relationship between a "customer" and an "account" with a single arrow pointing from the "customer" to the "account". No other arrows indicating a "relationship being different from the first relationship" as recited in claim 1 is disclosed. Also, Dimitrios, Fig. 2, discloses a flowchart of converting an E/R modeling data to an O-O hierarchy, and fails to disclose a "relationship being different from the first relationship." In addition, Dimitrios, col. 6, lines 45-60, is a table showing a simple O-O hierarchy, showing various inheritances among different classes. It discloses that an "Account" class inherits from a "Customer" class. However, the table is silent as to establishing any relations between a customer and account involvement entities with two different relationships between them. Therefore, Dimitrios fails to teach or suggest the features recited in claim 1, element (a)(iii).

Therefore, none of the cited references, singly or jointly in combination, disclose each of the features recited in elements (a)(i)-(iv) of claim 1 being established to form multiple concise account level decision relationships used to construct multiple concise account level decision queries. Accordingly, independent claim 1 and dependent claims 2, 4-6, and 8-12, which depend from claim 1, are patentable over the Dimitrios-Bosco-Guy combination.

B. Claims 20, and 25-26 are patentable for the same reason as claim 1

Claim 20 as amended is directed to a computer system for storing and processing account-related information by an application program that recites "a third account role for the first customer data object with respect to the first account ID, the third account role different from the first account role, that establishes multiple different roles for the customer identified by the first customer ID with respect to the account ID identified by the first account ID". This feature of claim 20 is similar to the feature recited in claim 1 as amended, which was noted above. For at least the same reasons as above regarding claim 1 as amended, claim 20 as amended is patentable over the references. Therefore, claims 22-26, which depend from claim 20 as amended, are also patentable over the references.

C. Claims 21, 27, and 29-31

i. Claim 21 is patentable for the same reason as claim 1

Claim 21 as amended is directed to a method for storing and processing account-related information in a data structure stored on one or more computer-readable mediums. Claim 21 recites "a third account role for the first customer data object with respect to the first account ID, the third account role different from the first account role, that establishes multiple different roles for the customer identified by the first customer ID with respect to the account ID identified by the first account ID". This feature is also similar to the feature recited in claim 1 as amended, which was noted above. For at least the same reasons as above regarding claim 1 as amended, claim 21 as amended is patentable over the references.

ii. Claim 21 is independently patentable for additional reasons: Cited references fail to teach the feature "addressing risks to customers and accounts" as recited in claim 21

Claim 21 as amended is also patentable for additional reasons. Claim 21 as amended recites "the risk data objects define risk factors associated with addressing risks to customers and accounts, comprising: risk factors addressed by products; and risk factors addressed by services." The Application at paragraph [0100] indicates that "using a conventional two tier system, there would be no opportunity to view ... risks in the context of the business needs for the parent company [the customer]." In other words, the risk factors as claimed are from the perspective of the customer, not the risk factors from the perspective of an institution that offers products and services to address the risks to the customer. The Application, at paragraph [0091], describes establishing relationships used to identify "more granular risk patterns for underwriting and therefore greater precision in risk assessment." The Office Action asserts that Dimitrios, in combination with Bosco, Guy and Hele show all the features of claim 21 as amended.

However, the cited combination does not teach or suggest the type of risk described by claim 21 as amended. Dimitrios, Bosco, Guy, and Hele, alone or in any combination, do not teach or suggest "the risk data objects define risk factors associated with addressing risks to customers and accounts." Instead, Hele describes, at paragraphs [0021] and [0047], querying a user about risk during an evaluation for life insurance coverage and collecting information from the user and any other sources. Hele indicates, at paragraphs [0080], [0096], and [0122]-[0123], that underwriting is a determination of the risk associated with insuring a particular user. Hele at [0118] indicates that the user may represent an unacceptable risk based on their financial situation, physical build, medical conditions, or participation in risky activities. In other words, Hele may at best teach or suggest risks to an institution and the risk factors associated with insuring a customer by the institution. However, Hele cannot be read to teach or suggest risk factors associated with addressing risks to customers. In other words, the risk factors addressed by products associated with addressing risks to a

customer are different from risk factors addressed by products offered to customers by an institution that address risks to the institution.

Because the type of risk and the relationships defined between risks, customers, accounts, products and services, used to provide the granular risk patterns described by claim 21 as amended are distinguishable from the risk taught by the cited combination, claim 21 as amended is patentable over the references. Even if the cited combination were proper, the combination at best teaches or suggests products that address risk from the perspective of an institution offering those products to customers. Thus, claim 21 as amended is patentable over the references.

iii. Features upon which Applicants rely in section ii is sufficiently recited in claim 21

The Examiner, in response to Applicants' prior arguments regarding the same feature, asserted that feature upon which Applicants rely is not recited in claim 21 as amended. Specifically, the Examiner asserted that the feature "the risk factors as claimed are from the perspectives of the customer and not the risk factors from the perspective of an institution that offers products and services to address the risks to the customer" are not recited in claim 21 as amended. (Office Action, pg. 4, paragraph 4). However, Applicants disagree.

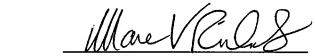
As stated above, claim 21 as amended recites in element (g) that "risk data objects define risk factors associated with addressing risks to customers and accounts ...." Therefore, the language of claim 21 as amended specifically recites the feature of defining risk factors from the perspectives of the customers by "addressing risks to customers". Accordingly, the feature Applicants rely on is sufficiently recited in the claim language itself.

Therefore, independent claim 21 as amended and dependent claims 27 and 29-31, which depend from claim 21, are also patentable over the references.

Conclusion

With this response, the present pending claims of this application are allowable, and Applicants respectfully request the Examiner to issue a Notice of Allowance for this application. Should the Examiner deem a telephone conference to be beneficial in expediting allowance/examination of this application, the Examiner is invited to call the undersigned attorney at the telephone number listed below.

Respectfully submitted,



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